

Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

Report Review

Inspection ID: 381135

Permit No: 62877

Place ID: 827

AZURITE Place Name: ENERGY FUELS RESOURCES - CANYON MINE

Inspection Type: Report Review

Type of Report: Annual Environmental Soil Sampling Report (2021)

Date Received: 8/27/2021

Date Reviewed: 9/3/2021

Reviewer: Mariana Mendez Armendariz

Results of Inspection:

Is the report certified for truth, accuracy, and completeness by a responsible official?

- ☒ Yes – Scott Bakken
☐ No – Contact Permittee for proper signature.

Does the Permittee state they are in compliance?

- ☒ Yes – File report without contacting Permittee.
☐ No – Request additional information or permit deviation report as necessary.

Reviewer Comments:

The Permittee has not exceeded the Uranium and Radium-226 trigger levels as stated in the permit; therefore, the report is submitted annually.

2021 Soil Results (Uranium) -

Duplicate of South: 0.755 mg/kg

Badge #66: 0.801 mg/kg

Badge #67: 0.937 mg/kg

Badge #68: 0.657 mg/kg

Badge #69: 0.593 mg/kg

The trigger level for uranium for this mine is 60 mg/kg.

2021 Soil Results (Radium-226) -

Main Office

1110 W. Washington Street • Phoenix, AZ 85007
(602) 771-2300

Southern Regional Office

400 W. Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

www.azdeq.gov

printed on recycled paper

Duplicate of South: 0.43 ± 0.14 pCi/g

Badge #66: 0.82 ± 0.17 pCi/g

Badge #67: 0.94 ± 0.19 pCi/g

Badge #68: 0.92 ± 0.24 pCi/g

Badge #69: 0.52 ± 0.2 pCi/g

The trigger level for Radium-226 for this mine is 20 pCi/g.

No reporting deficiencies noted.



Energy Fuels Resources (USA) Inc.
225 Union Blvd. Suite 600
Lakewood, CO, US, 80228
303 974 2140
www.energyfuels.com

August 27, 2021

VIA PDF AND EXPEDITED DELIVERY

Daniel Czecholinski, Director
Division of Air Quality
Arizona Department of Environmental Quality
Technical Services Unit
1110 West Washington Street
Phoenix, AZ 85007

**Subject: Energy Fuels Resources (USA) Inc. Pinyon Plain Mine 2021 Annual
Environmental Soil Sampling Results – Revision 86356 to Air Quality Class II
Permit No. 62877**

Dear Mr. Czecholinski:

Attached please find the Annual Environmental Soil Sampling Results for the Pinyon Plain Mine for 2021. The Environmental Soil Monitoring Results are required by Section II.B.2.b of Attachment D to the Arizona Department of Environmental Quality (“ADEQ”) Revision 86356 to Air Quality Class II Permit No. 62877 (the “Permit”) for the Pinyon Plain Mine. Attachment D, Section II.B.2.b requires that soil samples be collected within 60 days of Permit issuance and subsequent samples be collected quarterly for one year and annually thereafter. Reporting of soil data is required within 30 days of data receipt. As previously noted, the final quarterly soil sampling data required by the Permit was submitted in November 2017. Beginning in 2018, soil samples were collected annually. Also attached is a certification signature as required by VIII of Attachment A to the Permit.

The soil results are below the trigger levels specified in the Permit. No additional reporting as contemplated in Attachment D, Section II.B.3.c and Section II.B.3.d is required.

If you have any questions or comments, please do not hesitate to contact me at 303-389-4134.

Yours very truly,

A handwritten signature in blue ink, appearing to read 'Kathy Weinel', is written over the typed name.

ENERGY FUELS RESOURCES (USA) INC.
Kathy Weinel
Quality Assurance Manager

cc: Scott Bakken
Matt Germansen

**ANNUAL ENVIRONMENTAL SOIL MONITORING REPORT
FOR 2021**

ENERGY FUELS RESOURCES (USA) INC.



**PINYON PLAIN MINE
6.5 MILES SOUTHEAST OF TUSAYAN
COCONINO COUNTY, ARIZONA**

August 27, 2021

**PREPARED BY:
Energy Fuels Resources (USA) Inc.
225 Union Boulevard, Ste. 600
Lakewood, Colorado 80228**

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FIGURES

Figure 1	Sampling and Monitoring Location Map
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**Pinyon Plain Mine
Air Quality Control Permit No. 62877 (As Amended by 86356)**

1.0 Introduction

The Pinyon Plain Mine (the “Mine”) is an underground uranium mine, operated by Energy Fuels Resources (USA) Inc. (“EFRI”). The Mine is located 6.5 miles southeast of Tusayan in Coconino County, Arizona. The Mine is capable of producing a maximum of 109,500 tons per year of uranium ore. Ore is hauled to the White Mesa Mill (the “Mill”), near Blanding, Utah for processing. No ore processing occurs on site when operating. The site contains a mine shaft, a ventilation shaft, an office building, a head-frame and associated hoist and maintenance building, a septic vault, ore stockpiles (when mining), development rock stockpiles (when mining), topsoil stockpiles, other facilities associated with the mine operation and a lined non-stormwater impoundment. The location of the Mine is shown on Figure 1.

Pursuant to Attachment D, Section II.A of the Arizona Department of Environmental Quality (ADEQ”) Air Quality Control Permit, Number 62877 (As Amended by 86356) (the “Permit”), EFRI is required to conduct soil and gamma monitoring at four locations outside of the mine site. The locations are shown on Figure 1. The frequency of monitoring is described in Section 2 below.

This report presents the soil monitoring results for the Mine as required by the Permit and as described below.

2.0 Radiation Monitoring Activities In 2021

Pursuant to the current Permit, approved on October 13, 2016, soil and passive gamma monitoring is required to be conducted in accordance with the ADEQ-approved standard Operating Procedures (“SOPs”) included as Appendices 2 and 3 to the Permit. Attachment D, Section II.B.1.b requires that Optically Stimulated Luminescence (“OSL”) monitors for passive gamma be collected on a calendar quarter basis. Attachment D, Section II.B.2.b requires that soil samples be collected within 60 days of Permit issuance and subsequent samples be collected quarterly for one year and annually thereafter. Reporting of both soil and gamma data is required within 30 days of data receipt. Pursuant to the Permit, 5 quarterly soil samples were collected from fourth quarter 2016 through fourth quarter 2017. Soil sampling was conducted annually starting in 2018. The annual 2021 results are reported herein.

Gamma data will be reported under separate cover within 30 days of data receipt in accordance with the Permit requirements.

3.0 Trigger Levels

Attachment D, Section II.B.3.c specifies Initial Action Trigger Levels (“trigger level”) for uranium and radium-226 in soil and passive gamma results. The ADEQ-approved trigger levels were developed as described in the ADEQ Technical Review and Evaluation of Application for Air Quality Significant Revision and in the report entitled *Development of the Proposed Trigger Levels for Energy Fuel’s Arizona Mines*.

The trigger level for uranium and radium-226 in soil are 60 mg/kg and 20 pCi/g respectively. The soil results reported herein will be compared to this trigger level.

4.0 Analysis of Findings

Soil and duplicate results are included in Appendix A.

The soil results are below the trigger levels specified in the Permit. No additional reporting as contemplated in Attachment D, Section II.B.3.c and Section II.B.3.d is required.

5.0 Certification

**ENERGY FUELS RESOURCES (USA) INC.
PINYON PLAIN MINE, AIR QUALITY CONTROL PERMIT NUMBER 62877
(AS AMENDED BY 86356)
CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS**

Based on information and belief formed after reasonable inquiry, the statements and information in the foregoing document are true, accurate, and complete.



August 27, 2021

Signature of Responsible Official
Scott Bakken
Vice President, Regulatory Affairs

Date

APPENDIX A
PINYON PLAIN SOIL RESULTS

Summary of Soil Results for Pinyon Plain Mine

Badge Location	Uranium Trigger Level (mg/kg)	Uranium Results (mg/kg)	Radium-226 Trigger Level (pCi/g)	Radium-226 Results (pCi/g)
Fourth Quarter 2016				
Canyon South (66)	60	1.02	20	1 ± 0.23
Canyon West (67)		0.96		1.1 ± 0.23
Canyon North (68)		0.65		0.91 ± 0.25
Canyon East (69)		0.57		0.54 ± 0.16
Duplicate (70) of East (69)		0.59		0.88 ± 0.22
First Quarter 2017				
Duplicate (65) of East (69)	60	0.67	20	0.64 ± 0.19
Canyon South (66)		0.75		0.81 ± 0.19
Canyon West (67)		0.93		1.5 ± 0.27
Canyon North (68)		0.60		1 ± 0.25
Canyon East (69)		0.60		0.41 ± 0.2
Second Quarter 2017				
Duplicate (65) of South (66)	60	1.66	20	2 ± 0.26
Canyon South (66)		1.78		1.3 ± 0.26
Canyon West (67)		0.97		1.2 ± 0.29
Canyon North (68)		0.64		1.4 ± 0.3
Canyon East (69)		0.58		0.61 ± 0.27
Third Quarter 2017				
Duplicate (65) of South (66)	60	0.74	20	0.31 ± 0.14
Canyon South (66)		0.81		1 ± 0.2
Canyon West (67)		0.84		1 ± 0.2
Canyon North (68)		0.57		0.8 ± 0.19
Canyon East (69)		0.57		0.3 ± 0.2
Fourth Quarter 2017				
Duplicate (65) of South (66)	60	0.81	20	0.77 ± 0.17
Canyon South (66)		1.07		0.87 ± 0.18
Canyon West (67)		0.85		1.2 ± 0.23
Canyon North (68)		0.58		0.75 ± 0.22
Canyon East (69)		0.54		0.63 ± 0.18
Annual 2018				
Duplicate (65) of North (68)	60	0.59	20	1.2 ± 0.35
Canyon South (66)		0.72		0.74 ± 0.24
Canyon West (67)		0.84		1.1 ± 0.28
Canyon North (68)		0.54		0.91 ± 0.2
Canyon East (69)		0.52		0.71 ± 0.19
Annual 2019				
Duplicate of North (68)	60	0.69	20	1.4 ± 0.31
Canyon South (66)		0.70		0.83 ± 0.17
Canyon West (67)		0.89		1.4 ± 0.27
Canyon North (68)		0.63		1 ± 0.22
Canyon East (69)		0.55		1.1 ± 0.21

Summary of Soil Results for Pinyon Plain Mine

Badge Location	Uranium Trigger Level (mg/kg)	Uranium Results (mg/kg)	Radium-226 Trigger Level (pCi/g)	Radium-226 Results (pCi/g)
Annual 2020				
Duplicate of West (67)	60	0.86	20	1.4 ± 0.22
Canyon South (66)		0.67		1 ± 0.18
Canyon West (67)		0.89		1.2 ± 0.21
Canyon North (68)		0.64		1.1 ± 0.25
Canyon East (69)		0.55		1 ± 0.23
Annual 2021				
Duplicate of South (66)	60	0.755	20	0.43 ± 0.14
Canyon South (66)		0.801		0.82 ± 0.17
Canyon West (67)		0.937		0.94 ± 0.19
Canyon North (68)		0.657		0.92 ± 0.24
Canyon East (69)		0.593		0.52 ± 0.2

APPENDIX B

PINYON PLAIN LABORATORY DATA

August 25, 2021

Report to:

Kathy Weinel
Energy Fuels Resources (USA) Inc.
225 Union Blvd. , Suite 600
Lakewood, CO 80228

Bill to:

Accounts Payable
Energy Fuels Resources (USA) Inc.
225 Union Blvd. , Suite 600
Lakewood, CO 80228

Project ID:

ACZ Project ID: L67073

Kathy Weinel:

Enclosed are the analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on July 13, 2021. This project has been assigned to ACZ's project number, L67073. Please reference this number in all future inquiries.

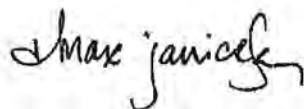
All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L67073. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after September 24, 2021. If the samples are determined to be hazardous, additional charges apply for disposal (typically \$11/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical raw data reports for ten years.

If you have any questions or other needs, please contact your Project Manager.



Max Janicek has reviewed and
approved this report.



Energy Fuels Resources (USA) Inc.
Project ID:
Sample ID: PINION PLAIN MINE-69

ACZ Sample ID: **L67073-01**
Date Sampled: 07/07/21 13:10
Date Received: 07/13/21
Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	505	0.593			mg/Kg	0.0505	0.253	08/05/21 11:46	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	99.0		*	%	0.1	0.5	07/29/21 4:35	mep

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								07/22/21 11:12	zln
Digestion - Hot Plate	M3050B ICP-MS								08/04/21 10:08	mep
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								07/27/21 16:25	mep

Energy Fuels Resources (USA) Inc.
Project ID:
Sample ID: PINION PLAIN MINE-68

ACZ Sample ID: **L67073-02**
Date Sampled: 07/07/21 12:58
Date Received: 07/13/21
Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	505	0.657			mg/Kg	0.0505	0.253	08/05/21 11:52	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	99.2		*	%	0.1	0.5	07/29/21 6:40	mep

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								07/22/21 11:17	zln
Digestion - Hot Plate	M3050B ICP-MS								08/04/21 11:07	mep
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								07/27/21 16:30	mep

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: PINION PLAIN MINE-66

ACZ Sample ID: **L67073-03**

Date Sampled: 07/07/21 12:05

Date Received: 07/13/21

Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	505	0.801			mg/Kg	0.0505	0.253	08/05/21 11:54	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	99.0		*	%	0.1	0.5	07/29/21 8:45	mep

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								07/22/21 11:21	zln
Digestion - Hot Plate	M3050B ICP-MS								08/04/21 11:26	mep
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								07/27/21 16:35	mep

Energy Fuels Resources (USA) Inc.
 Project ID:
 Sample ID: PINION PLAIN MINE-67

ACZ Sample ID: **L67073-04**
 Date Sampled: 07/07/21 12:29
 Date Received: 07/13/21
 Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	505	0.937			mg/Kg	0.0505	0.253	08/05/21 11:57	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	99.0		*	%	0.1	0.5	07/29/21 10:50	mep

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								07/22/21 11:25	zln
Digestion - Hot Plate	M3050B ICP-MS								08/04/21 11:46	mep
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								07/27/21 16:40	mep

Energy Fuels Resources (USA) Inc.
Project ID:
Sample ID: PINION PLAIN MINE-100

ACZ Sample ID: **L67073-05**
Date Sampled: 07/07/21 12:05
Date Received: 07/13/21
Sample Matrix: Soil

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Uranium, total (3050)	M6020B ICP-MS	500	0.755			mg/Kg	0.05	0.25	08/05/21 12:03	mfm

Soil Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Solids, Percent	D2216-80	1	99.1		*	%	0.1	0.5	07/29/21 12:55	mep

Soil Preparation

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	MDL	PQL	Date	Analyst
Air Dry at 34 Degrees C	USDA No. 1, 1972								07/22/21 11:29	zln
Digestion - Hot Plate	M3050B ICP-MS								08/04/21 12:05	mep
Sieve-2000 um (2.0mm)	ASA No.9, 15-4.2.2								07/27/21 16:45	mep



Laboratories, Inc.

2773 Downhill Drive Steamboat Springs, CO 80487 (800) 334-5493

Inorganic Reference

Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

Energy Fuels Resources (USA) Inc.ACZ Project ID: **L67073**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Solids, Percent

D2216-80

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524223													
L67057-01DUP	DUP	07/28/21 18:10			97.5	97.5	%				0	20	
WG524223PBS	PBS	07/29/21 15:00				U	%		-0.1	0.1			

Uranium, total (3050)

M6020B ICP-MS

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG524737													
WG524737ICV	ICV	08/05/21 11:29	MS210727-2	.05		.05401	mg/L	108	90	110			
WG524737ICB	ICB	08/05/21 11:30				U	mg/L		-0.0003	0.0003			
WG524579PBS	PBS	08/05/21 11:41				U	mg/Kg		-0.15	0.15			
WG524579LCSS	LCSS	08/05/21 11:43	PCN63584	51.9		48.3375	mg/Kg		39.6	64.3			
WG524579LCSSD	LCSSD	08/05/21 11:45	PCN63584	51.9		46.84323	mg/Kg		39.6	64.3	3	20	
L67073-01MS	MS	08/05/21 11:48	MS210521-6	12.625	.593	12.72828	mg/Kg	96	75	125			
L67073-01MSD	MSD	08/05/21 11:50	MS210521-6	12.625	.593	12.81213	mg/Kg	97	75	125	1	20	

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L67073**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
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No extended qualifiers associated with this analysis

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: PINION PLAIN MINE-69

Locator:

ACZ Sample ID: **L67073-01**

Date Sampled: 07/07/21 13:10

Date Received: 07/13/21

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XO	Analyst
Radium 226 (3050)	08/24/21 0:00		0.52	0.2	0.14	pCi/g	*	djc

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: PINION PLAIN MINE-68

Locator:

ACZ Sample ID: **L67073-02**

Date Sampled: 07/07/21 12:58

Date Received: 07/13/21

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (3050)	08/24/21 0:00		0.92	0.24	0.2	pCi/g	*	djc

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: PINION PLAIN MINE-66

Locator:

ACZ Sample ID: **L67073-03**

Date Sampled: 07/07/21 12:05

Date Received: 07/13/21

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (3050)	08/24/21 0:00		0.82	0.17	0.1	pCi/g	*	djc

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: PINION PLAIN MINE-67

Locator:

ACZ Sample ID: **L67073-04**

Date Sampled: 07/07/21 12:29

Date Received: 07/13/21

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (3050)	08/24/21 0:00		0.94	0.19	0.14	pCi/g	*	djc

Energy Fuels Resources (USA) Inc.

Project ID:

Sample ID: PINION PLAIN MINE-100

Locator:

ACZ Sample ID: **L67073-05**

Date Sampled: 07/07/21 12:05

Date Received: 07/13/21

Sample Matrix: Soil

Radium 226 (3050)

Prep Method:

M903.1

Parameter	Measure Date	Prep Date	Result	Error(+/-)	LLD	Units	XQ	Analyst
Radium 226 (3050)	08/24/21 0:00		0.43	0.14	0.14	pCi/g	*	djc



Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Error(+/-)</i>	Calculated sample specific uncertainty
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>LCL</i>	Lower Control Limit, in % (except for LCSS, mg/Kg)
<i>LLD</i>	Calculated sample specific Lower Limit of Detection
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Amount of the true value or spike added recovered, in % (except for LCSS, mg/Kg)
<i>RER</i>	Relative Error Ratio, calculation used for Dup. QC taking into account the error factor.
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>UCL</i>	Upper Control Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>DUP</i>	Sample Duplicate	<i>MS/MSD</i>	Matrix Spike/Matrix Spike Duplicate
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBS</i>	Prep Blank - Soil
<i>LCSW</i>	Laboratory Control Sample - Water	<i>PBW</i>	Prep Blank - Water

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Matrix Spikes	Determines sample matrix interferences, if any.

ACZ Qualifiers (Qual)

H	Analysis exceeded method hold time.
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Method Prefix Reference

M	EPA methodology, including those under SDWA, CWA, and RCRA
SM	Standard Methods for the Examination of Water and Wastewater.
D	ASTM
RP	DOE
ESM	DOE/ESM

Comments

- (1) Solid matrices are reported on a dry weight basis.
- (2) Preparation method: "Method" indicates preparation defined in analytical method.
- (3) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://aczk.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L67073**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Radium 226 (3050)

M903.1

Units: pCi/g

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Error	LLD	Found	Error	LLD	Rec%	Lower	Upper	RPD/RER	Limit	Qual
WG524941																
WG524112PBS	PBS	08/24/21						15	0.15	0.22			0.44			
WG524112LCSS	LCSS	08/24/21	PCN62879	40				23	0.75	0.16	58	43	148			
L67057-01MS	MS	08/24/21	PCN62879	40.82	2.6	0.26	0.11	19	0.65	0.14	40	43	148			M2
L67057-03DUP	DUP-RPD	08/24/21			1	0.21	0.24	.23	0.18	0.22				125	20	RC

Energy Fuels Resources (USA) Inc.

ACZ Project ID: **L67073**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L67073-01	WG524941	Radium 226 (3050)	M903.1	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M903.1	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
L67073-02	WG524941	Radium 226 (3050)	M903.1	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M903.1	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
L67073-03	WG524941	Radium 226 (3050)	M903.1	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M903.1	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
L67073-04	WG524941	Radium 226 (3050)	M903.1	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M903.1	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.
L67073-05	WG524941	Radium 226 (3050)	M903.1	M2	Matrix spike recovery was low, the recovery of the associated control sample (LCS or LFB) was acceptable.
			M903.1	RC	For a solid matrix, the matrix duplicate precision assessment (RPD or RER) exceeded the control limit, which is attributable to the non-homogeneity of the sample.

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Soil Analysis

The following parameters are not offered for certification or are not covered by NELAC certificate #ACZ.

Solids, Percent

D2216-80

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L67073

Date Received: 07/13/2021 11:26

Received By:

Date Printed: 7/14/2021

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Is the Chain of Custody form or other directive shipping papers present?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Does this project require special handling procedures such as CLP protocol?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Are any samples NRC licensable material?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5) If samples are received past hold time, proceed with requested short hold time analyses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6) Is the Chain of Custody form complete and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9) Are all labels on containers and are they intact and legible?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11) For preserved bottle types, was the pH checked and within limits? ¹	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
12) Is there sufficient sample volume to perform all requested work?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13) Is the custody seal intact on all containers?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14) Are samples that require zero headspace acceptable?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15) Are all sample containers appropriate for analytical requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16) Is there an Hg-1631 trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17) Is there a VOA trip blank present?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
18) Were all samples received within hold time?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA35441	25.5	NA	15	Yes

Was ice present in the shipment container(s)?

No - Wet or gel ice was not present in the shipment container(s).

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

Energy Fuels Resources (USA) Inc.

ACZ Project ID: L67073

Date Received: 07/13/2021 11:26

Received By:

Date Printed: 7/14/2021



¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



CHAIN OF CUSTODY

Kathy Weinel
Ph: 303.389.4134
kweinel@energyfuels.com

[illegible]

Relinquished By: (Signature) 	Date/Time 7-9-21 1200	Received By: (Signature)  7/13/21	Date/Time 11:20
Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Date/Time

67073 Chain of Custody

FIGURE

